

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International publication date

1 April 2004 (01.04.2004)

PCT

(10) International publication number

WO 2004/027929 A1

(51) International patent classification<sup>7</sup>:  
23/00, 5/00, 1/22, 9/06

H01Q 9/28,

(30) Data relating to the priority:  
102 42 935.916 September 2002 (16.09.2002) DE

(21) International application number: PCT/EP2003/010136

(71) Applicant (for all designated States except US):  
KATHREIN-WERKE KG [DE/DE]; Anton-Kathrein-  
Strasse 1-3, 83022 Rosenheim (DE).

(22) International filing date: 11 September 2003 (11.09.2003)

(25) Language of filing:

German

(72) Inventors; and

(26) Language of publication:

German

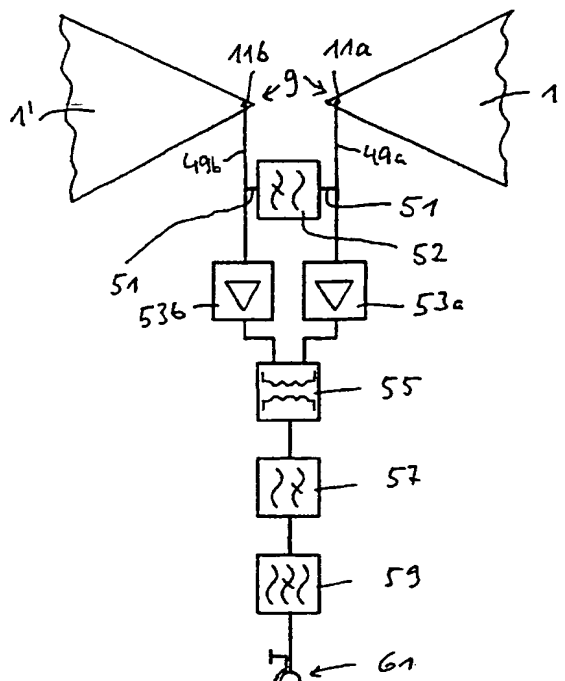
(75) Inventors/Applicants (US only): SCHILLMEIER,  
Gerald [DE/DE]; Zillertalstrasse 63, 81373 Munich  
(DE). STADLER, Gerhard [DE/DE]; Rohretweg 14a,  
83064 Raubling (DE). EXLER, Ralf [DE/DE]; Sepp-  
Strassberger-Strasse 26, 83059 Kolbermoor (DE).  
WILD, Andreas [DE/DE]; Schmiedgasse 3, 83026  
Rosenheim (DE).

[continued on next page]

As printed

(54) Title: ANTENNA ASSEMBLY COMPRISING A SURFACE DIPOLE

(54) Bezeichnung: ANTENNENANORDNUNG MIT EINEM FLÄCHENDIPOL



(57) Abstract: The invention relates to an improved antenna assembly, characterised by the following features: the opposing end regions (9) of the dipole halves (1') are each electrically connected to a respective connection line (49a, 49b); the connection lines (49a, 49b) lead to two amplifiers (53a, 53b); the outputs of both amplifiers (53a, 53b) are connected to the two inputs of a transformer (55), whose output is at least indirectly electrically connected to a connector (61), preferably a coaxial connector (61); one or more filters (51, 57, 59) are provided; the filters (51, 57, 59) are positioned between the connection lines (49a, 49b) and the connector terminal (61); the filter or filters (51, 57, 59) is/are designed to suppress mobile radio frequency ranges and/or to protect broadcasting signals.

(57) Zusammenfassung: Eine verbesserte Antennenanordnung zeichnet sich durch die folgenden Merkmale aus: die aufeinander zu weisenden Endbereiche (9) der Dipolhälften (1') sind jeweils mit einer eigenen Anschlussleitung (49a, 49b) elektrisch verbunden, die Anschlussleitungen (49a, 49b) führen zu zwei Verstärkern (53a, 53b), die Ausgänge der beiden Verstärker (53a, 53b) sind mit den beiden Eingängen eines Übertragers (55) verbunden, dessen Ausgang zumindest mittelbar mit einem Anschluss (61), vorzugsweise einem Koaxialanschluss (61), verbunden, elektrisch verbunden ist, es sind ein oder mehrere Filter (51, 57, 59) vorgesehen, die Filter (51, 57, 59) sind zwischen den Anschlussleitungen (49a, 49b) und

der Anschlussstelle (61) angeordnet, das oder die Filter (51, 57, 59) ist bzw. sind

WO 2004/027929 A1

[continued on next page]

(74) **Attorney:** FLACH, Dieter; Adlzreiterstrasse 11, 83022  
Rosenheim (DE).

(81) **Designated states (national):** AE, AG, AL, AM, AT  
(utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ,  
CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE  
(utility model), DE, DK (utility model), DK, DM, DZ,  
EC, EE (utility model), EE, EG, ES, FI (utility model),  
FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,  
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,  
MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,  
OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK  
(utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ,  
UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) **Designated states (regional):** ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ,  
TM), European patent (AT, BE, BG, CH, CY, CZ, DE,  
DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL,  
PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG,  
CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

- *With International Search Report.*
- *before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments*

*For an explanation of the two-letter codes and the other  
abbreviations, reference is made to the explanations ("Guidance  
Notes on Codes and Abbreviations") at the beginning of each  
regular edition of the PCT Gazette.*